BookletChart™

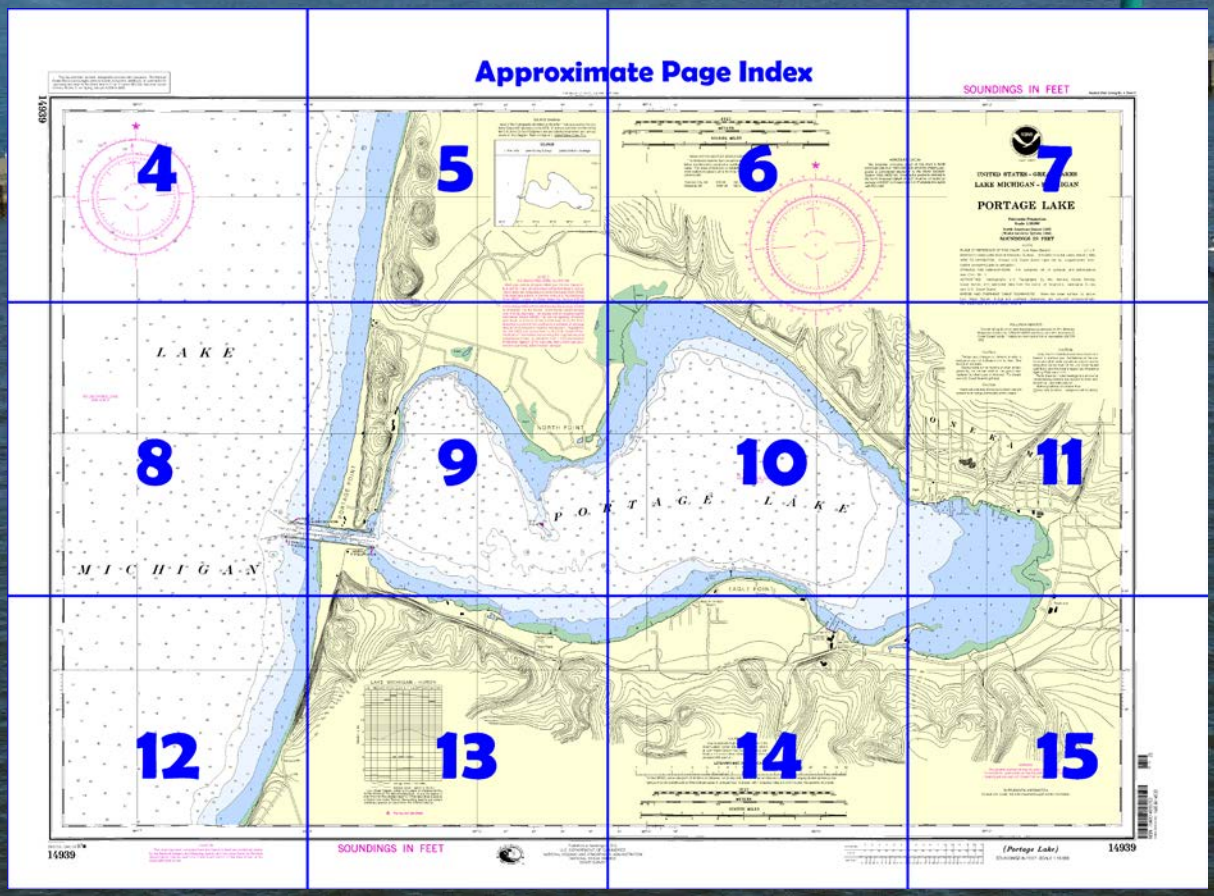
Portage Lake

NOAA Chart 14939

A reduced-scale NOAA nautical chart for small boaters

When possible, use the full-size NOAA chart for navigation.

- *Complete, reduced-scale nautical chart*
- *Print at home for free*
- *Convenient size*
- *Up-to-date with Notices to Mariners*
- *Compiled by NOAA's Office of Coast Survey, the nation's chartmaker*



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=14939.

(Selected Excerpts from Coast Pilot)
Portage Lake, 23 miles south of Point Betsie, is separated from Lake Michigan by a narrow strip of land. The lake, 3.3 miles long and 0.6 to 1.5 miles wide, has central depths of 14 to 60 feet with gradual shoaling toward shore. A shoal, marked by a lighted buoy, has depths of 7 to 12 feet near its outer end and extends 0.4 mile south from North Point, about 0.9 mile east of the entrance channel. **Onekama, MI,** is a village on the north side of the lake at the east end.
Channels.–The dredged entrance channel leads from Lake Michigan between parallel piers and revetments to the deep water inside Portage Lake. The outer ends of the piers and the Portage Lake end of the south pier are marked by lights. A sound signal, which operates by keying the microphone five times on VHF-FM channel 79, is at the north outer end light. In 2011, the controlling depth was 8 feet in the entrance channel. The channel is subject to shoaling from sand swept in by shore currents. The currents in the entrance channel attain velocities up to 3 mph in either direction.
Mooring to the piers and revetments is prohibited. Mariners are cautioned against navigating outside channel limits in the vicinity of structures protected by stone riprap.
Good anchorage is available in Portage Lake.
A **speed limit** of 8 mph (7 knots) is enforced in Portage Lake. (See **33 CFR 162.120,** chapter 2, for regulations.)

U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies

RCC Cleveland	Commander 9th CG District Cleveland, OH	(216) 902-6117

Table of Selected Chart Notes

Ⓟ Pump-out facilities

Polyconic Projection
Scale 1:10,000
North American Datum 1983
(World Geodetic System 1984)
SOUNDINGS IN FEET

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION

Due to periodic high water conditions in the Great Lakes, some features charted as visible at Low Water Datum may be submerged, particularly in the near shore areas. Mariners should proceed with caution.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

CAUTION

Only marine radiobeacons have been calibrated for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Imagery and Mapping Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

NOTE Z
NO-DISCHARGE ZONE, 40 CFR 140

Michigan waters of Lakes Michigan, Huron, Superior, Erie and St. Clair, all waterways connected thereto, and all inland lakes are designated as a No-Discharge Zone (NDZ). This chart falls entirely within the limits of a No-Discharge Zone (NDZ). Under the Clean Water Act, Section 312, all vessels operating within a No-Discharge Zone (NDZ) are completely prohibited from discharging any sewage, treated or untreated, into the waters. Commercial vessel sewage shall include graywater. All vessels with an installed marine sanitation device (MSD) that are navigating, moored, anchored, or docked within a NDZ must have the MSD disabled to prevent the overboard discharge of sewage (treated or untreated) or install a holding tank. Regulations for the NDZ are contained in the U.S. Coast Pilot. Additional information concerning the regulations and requirements may be obtained from the Environmental Protection Agency (EPA) web site: http://www.epa.gov/owow/oceans/regulatory/vessel_sewage/.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.006" northward and 0.314" westward to agree with this chart.

NOAA VHF-FM WEATHER BROADCASTS

The National Weather Service stations listed below provide continuous marine weather broadcasts. The range of reception is variable, but for most stations is usually 20 to 40 miles from the antenna site.

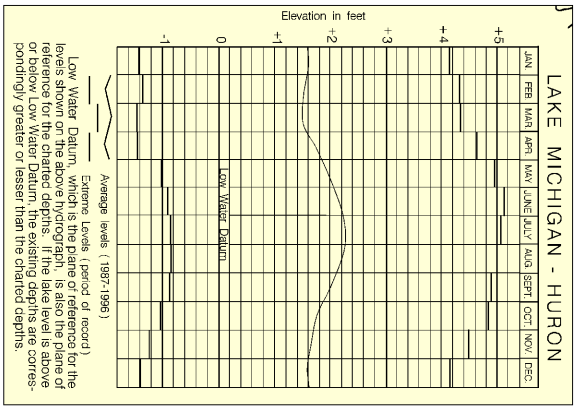
Traverse City, MI	KIH-22	162.40 MHz (Chan WX-2)
Hesperia, MI	WWF-36	162.47 MHz (Chan WX-3)

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

SOURCE DIAGRAM

Most of the hydrography identified by the letter "j" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.



BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

AUTHORITIES. Hydrography and Topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

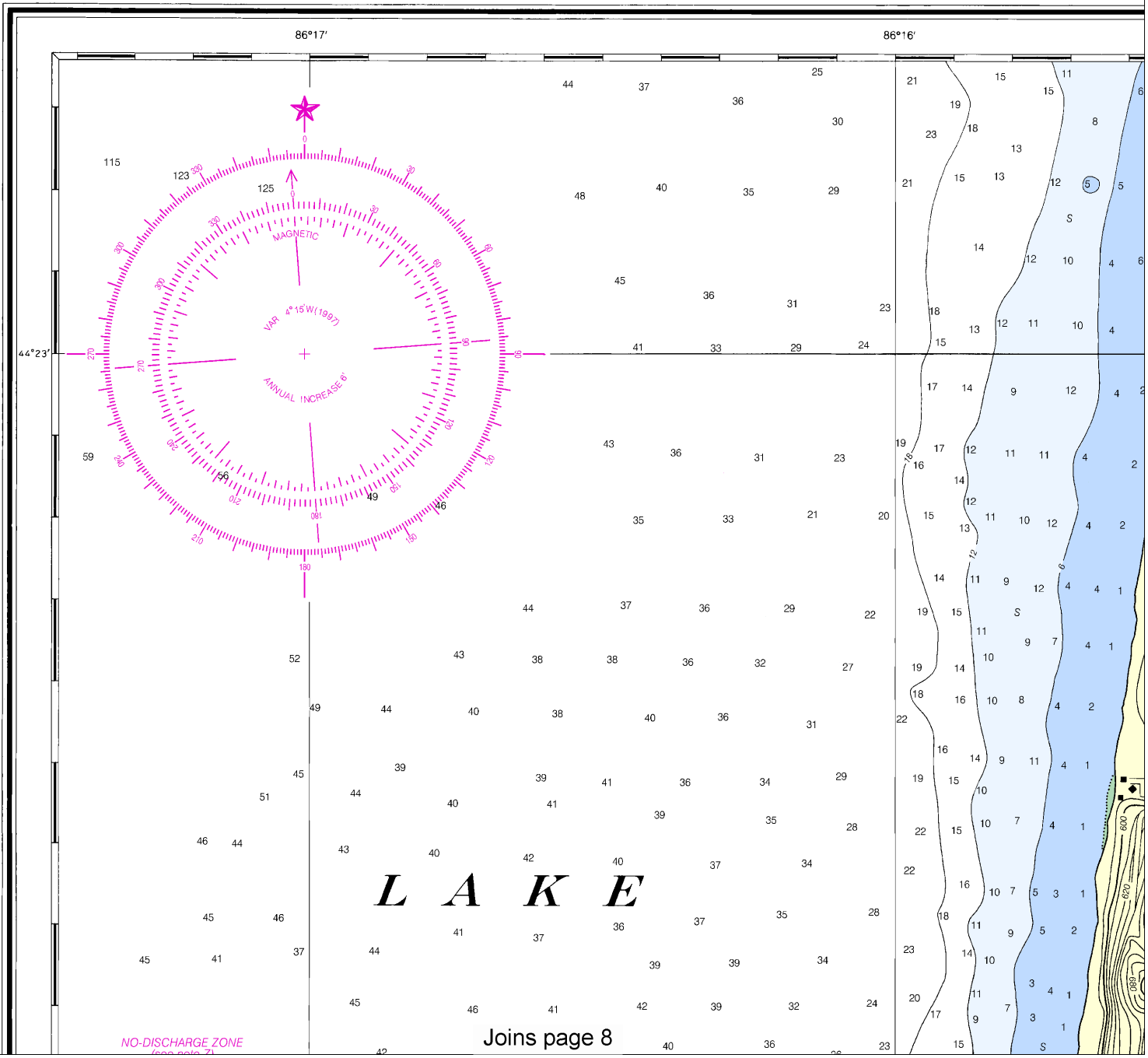
SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1.

PLANE OF REFERENCE OF THIS CHART (Low Water Datum) ..... 577.5 ft.
Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

14939



4

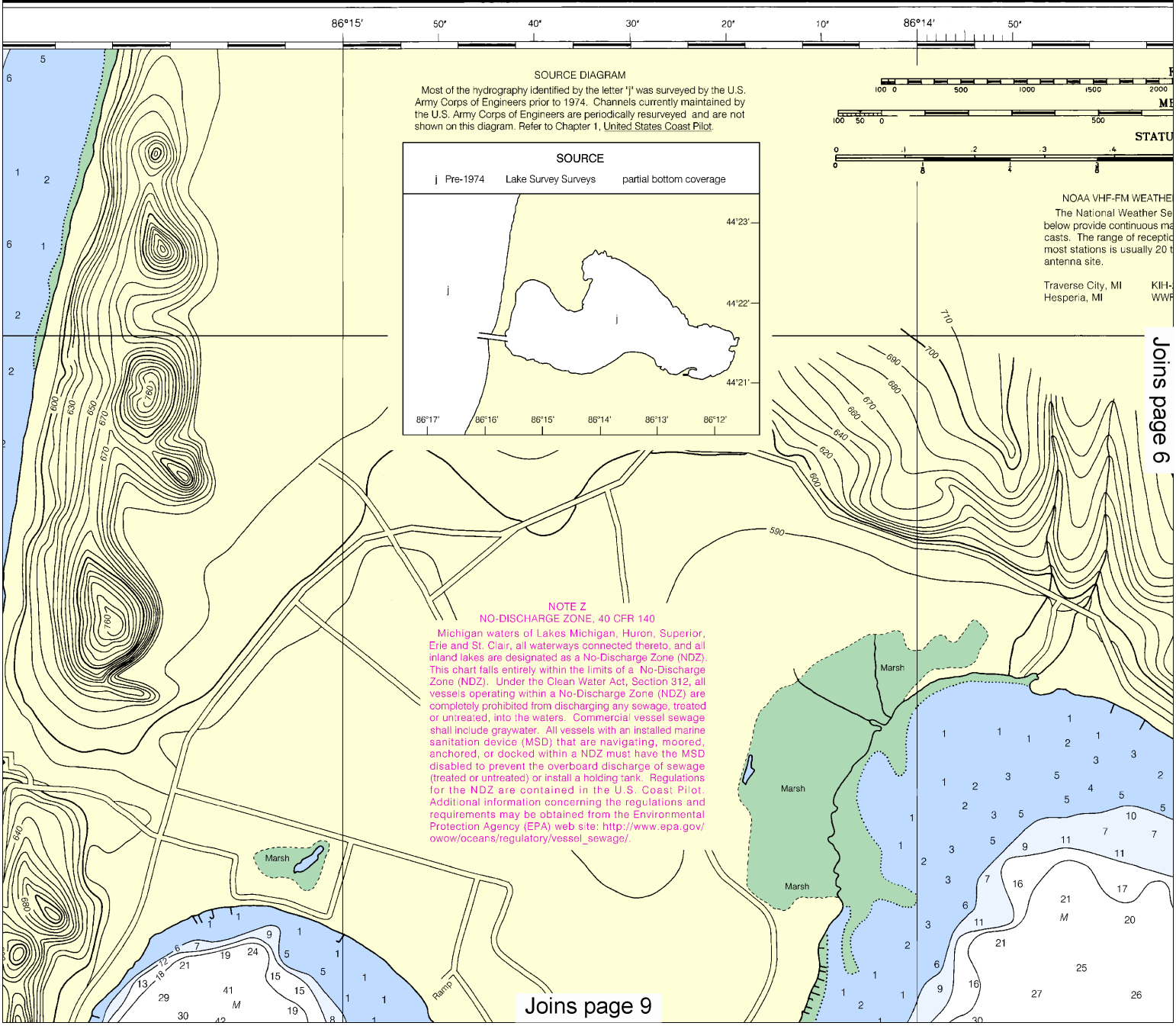
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:10,000~~

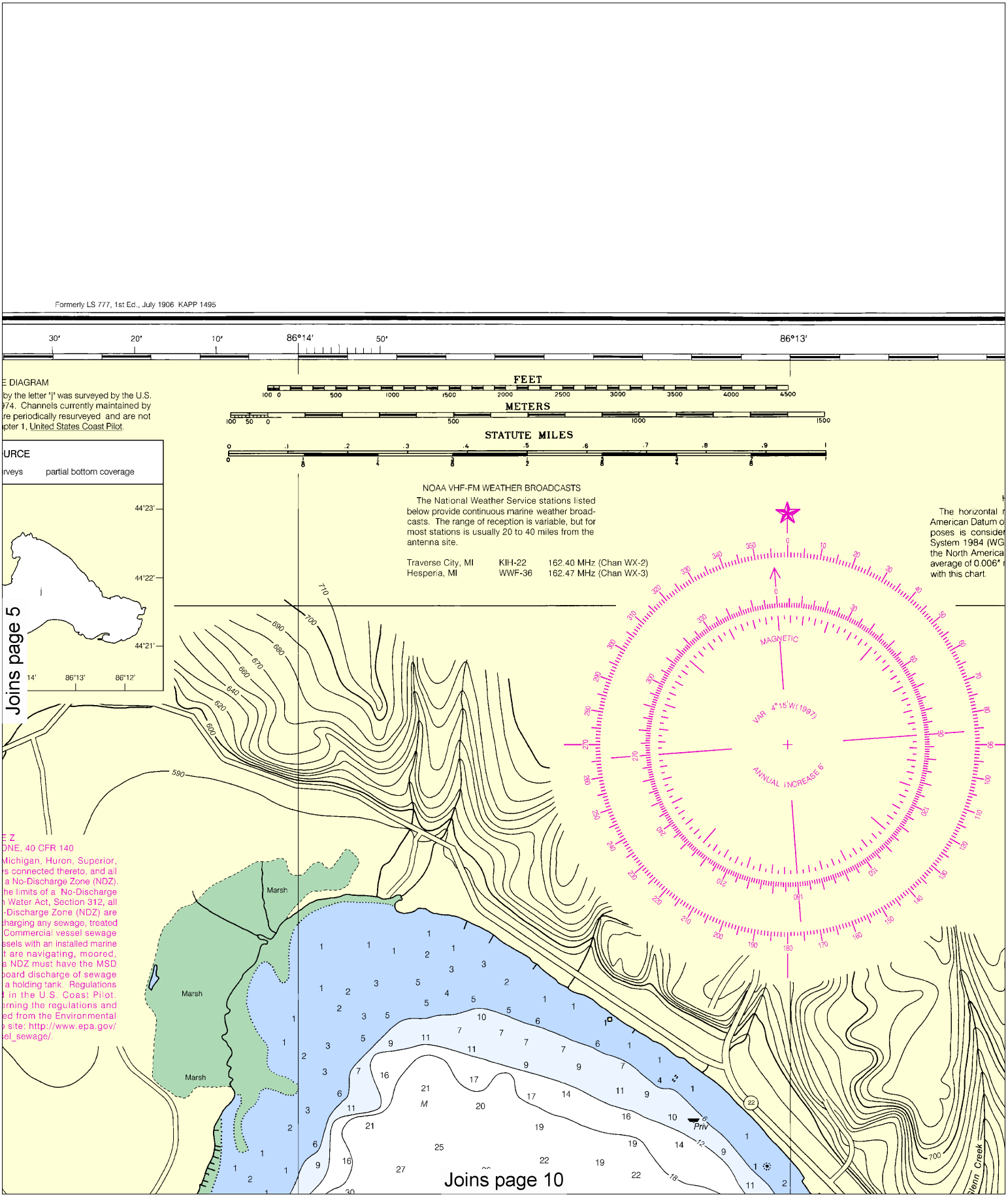
Nautical Miles
0
Yards
200 0 200 400 600 800 1000 1200

See Note on page 5.

Formerly LS 777, 1st Ed., July 1906 KAPP 1495



This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:13333. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.



6

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:10,000~~

Nautical Miles

0

Yards

200 0 200 400 600 800 1000 1200

See Note on page 5.

SOUNDINGS IN FEET

86°12'

44°23'

HORIZONTAL DATUM

reference datum of this chart is North of 1983 (NAD 83), which for charting purered equivalent to the World Geodetic GS 84). Geographic positions referred to an Datum of 1927 must be corrected an " northward and 0.314" westward to agree

COAST SURVEY

UNITED STATES - GREAT LAKES

LAKE MICHIGAN - MICHIGAN

PORTAGE LAKE

Polyconic Projection
Scale 1:10,000

North American Datum 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET

NOTES

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POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

CAUTION

Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

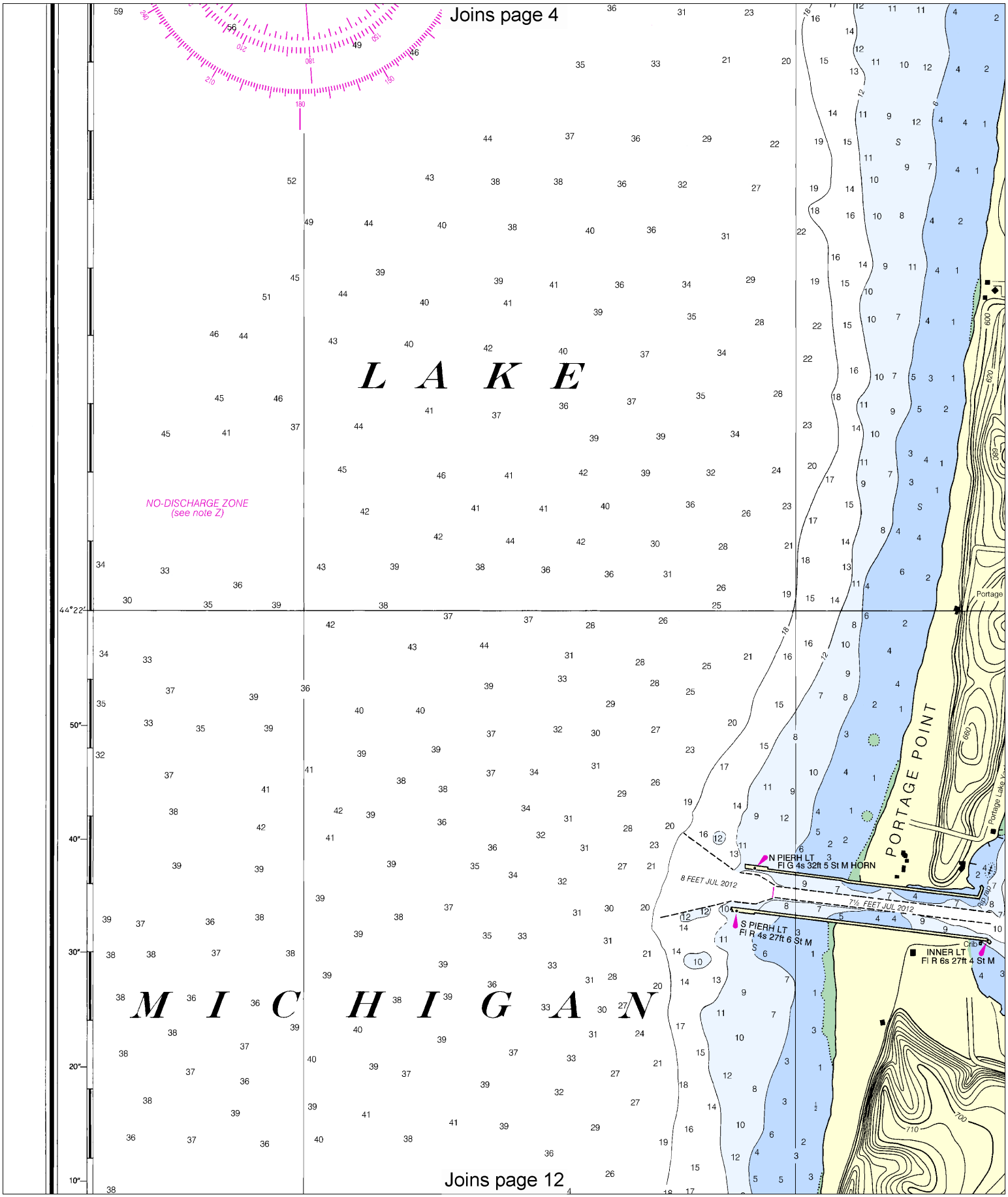
CAUTION

Only marine radiobeacons have been calibrated for surface use. Limitations on the use of certain other radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Imagery and Mapping Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) ○(Approximate location)

Joins page 11



8

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:10,000~~

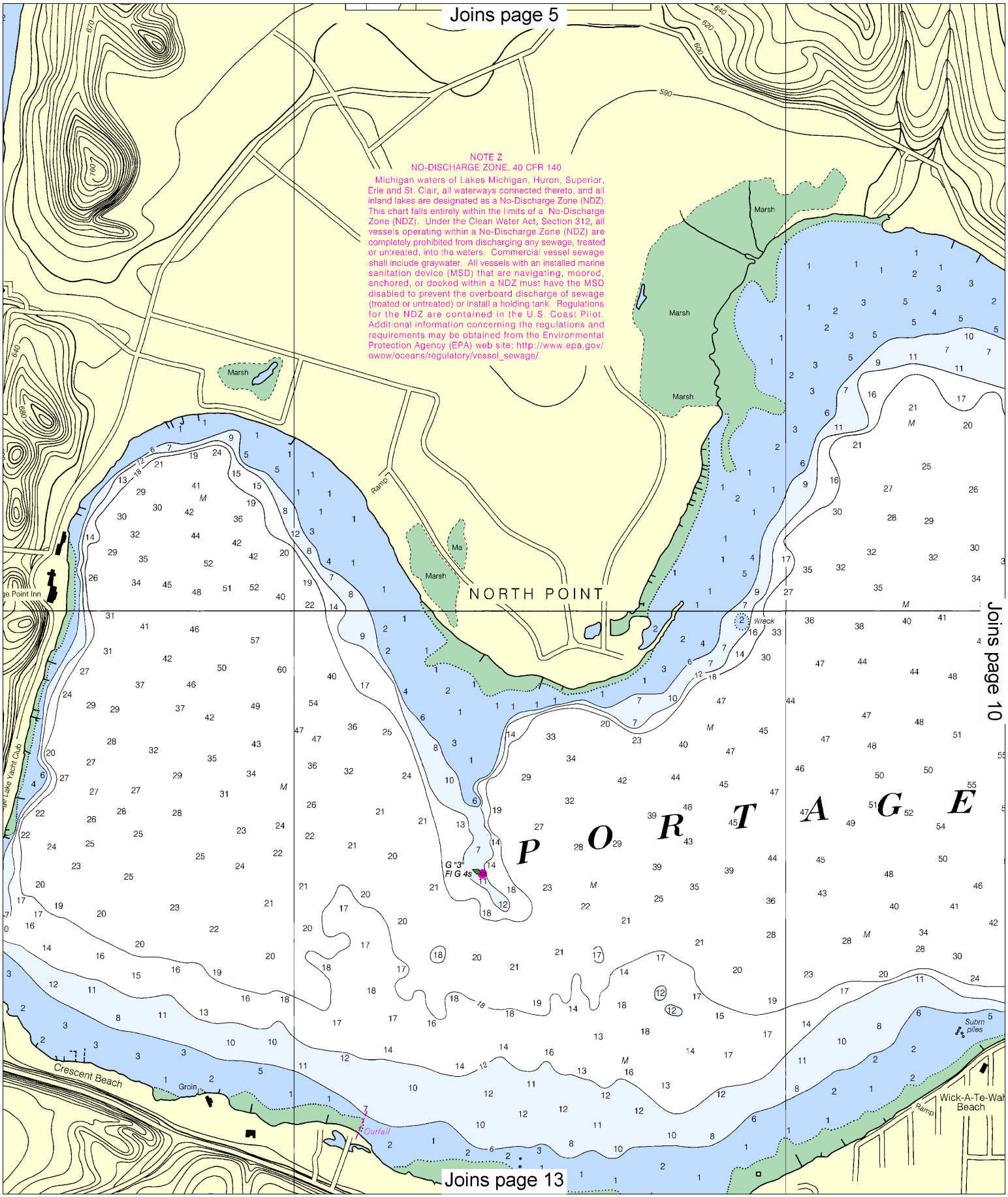
Nautical Miles

0

Yards

200 0 200 400 600 800 1000 1200

See Note on page 5.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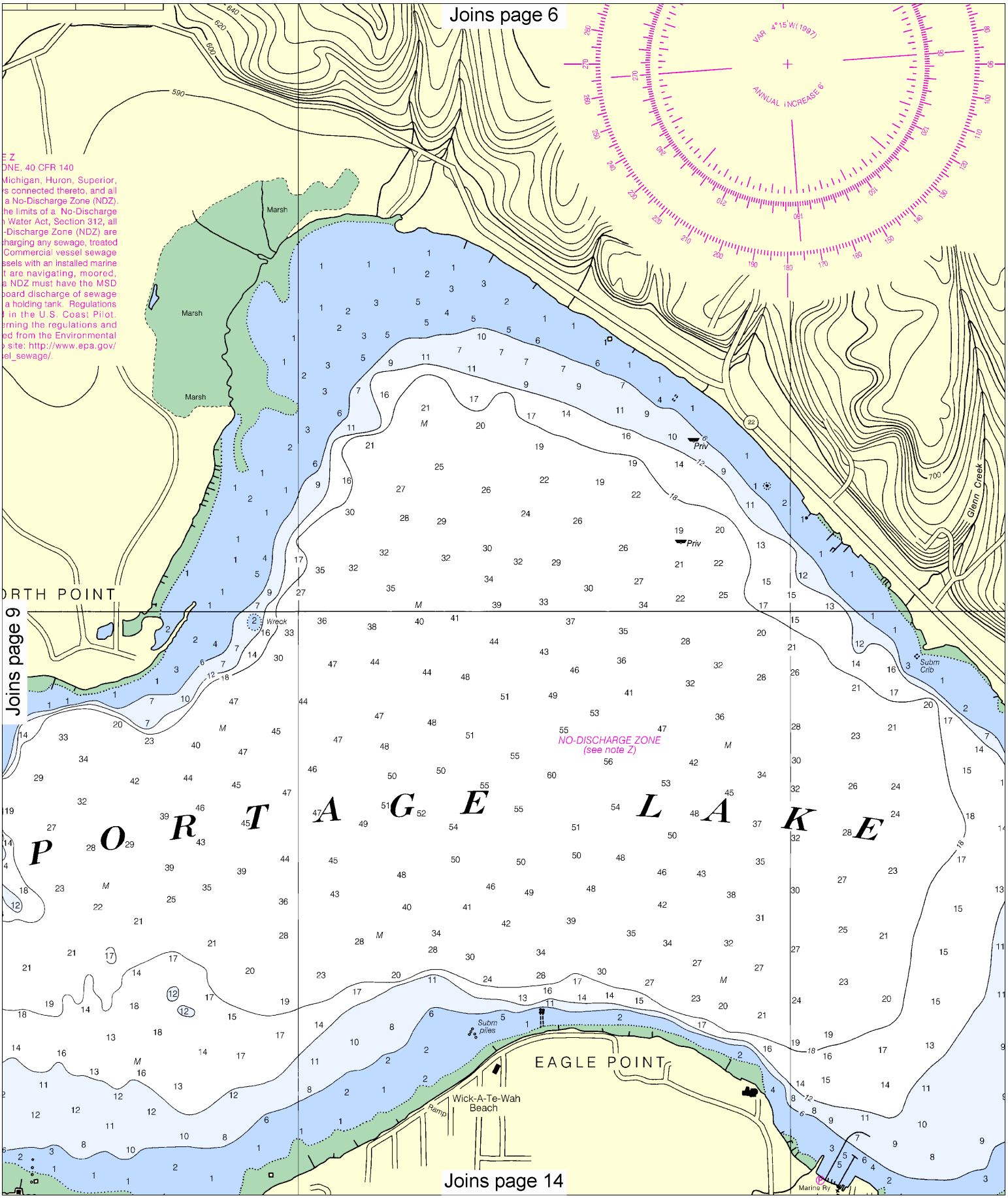
Marsh
Marsh
Marsh
Marsh
Ramp
Ma
NORTH POINT
Wreck
PORTAGE
G "3"
Fl G 4s
Joins page 10
Crescent Beach
Groin
Outfall
Subm piles
Ramp
Wick-A-Te-Wah Beach
Joins page 13



Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:10,000~~

Nautical Miles

0

Yards

200 0 200 400 600 800 1000 1200

See Note on page 5.

Joins page 7

North American Datu
(World Geodetic System 1984)

SOUNDINGS IN FEET

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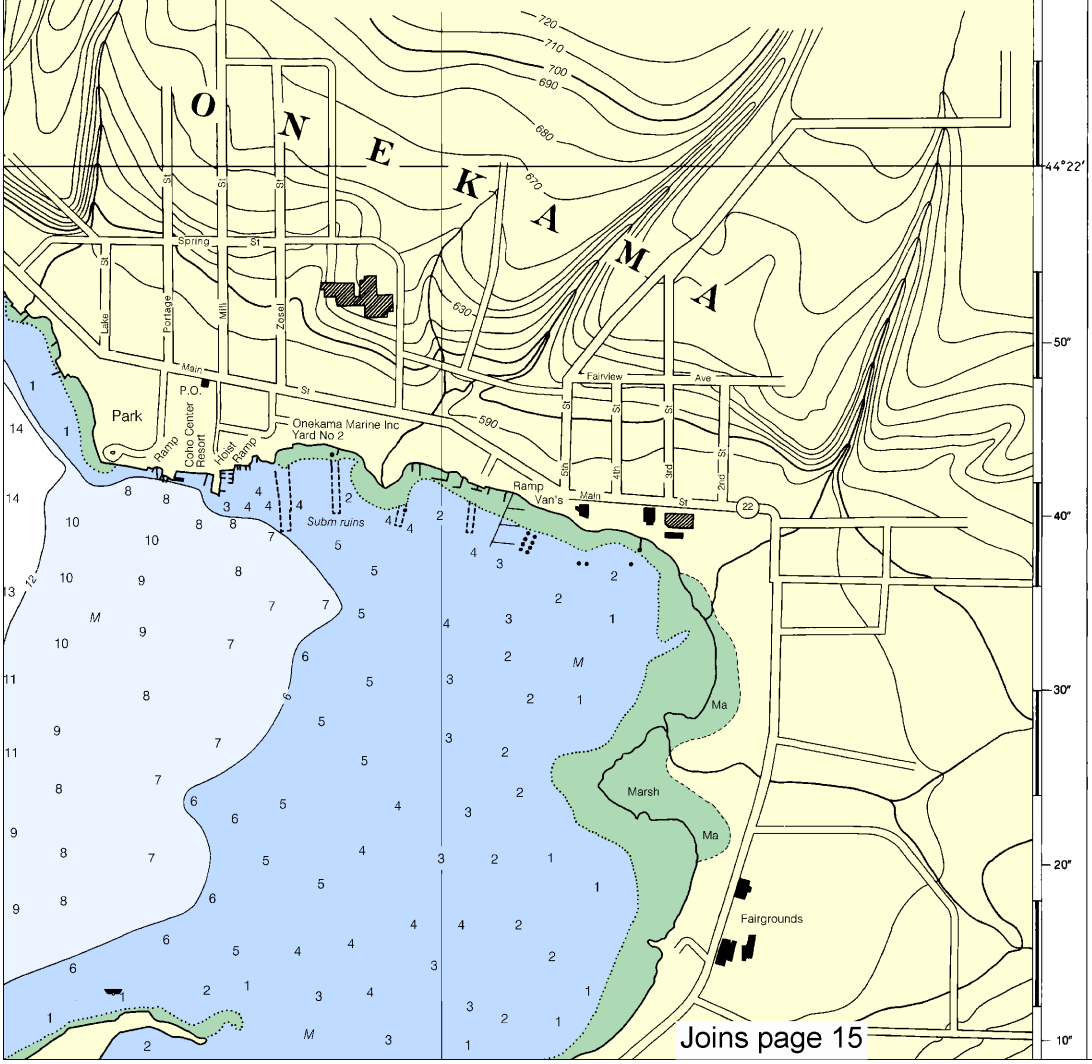
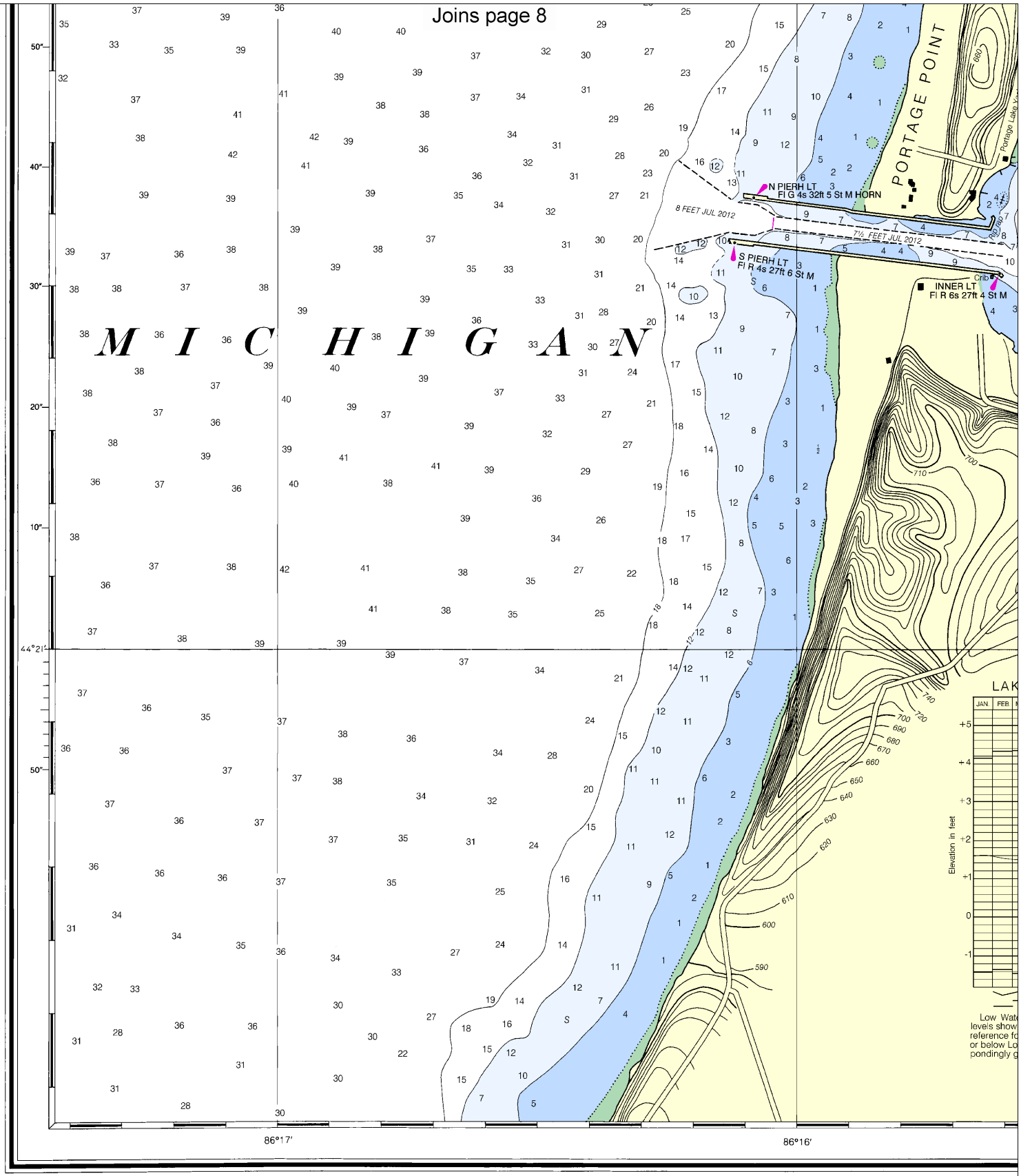


Joins page 15



23rd Ed., Dec.13/97■

14939

CAUTION

This chart has been corrected from the Notice to Mariners published weekly by the National Imagery and Mapping Agency and the Local Notice to Mariners issued periodically by each U.S. Coast Guard district to the date shown in the lower left hand corner.

SOUNDI

12

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:10,000~~

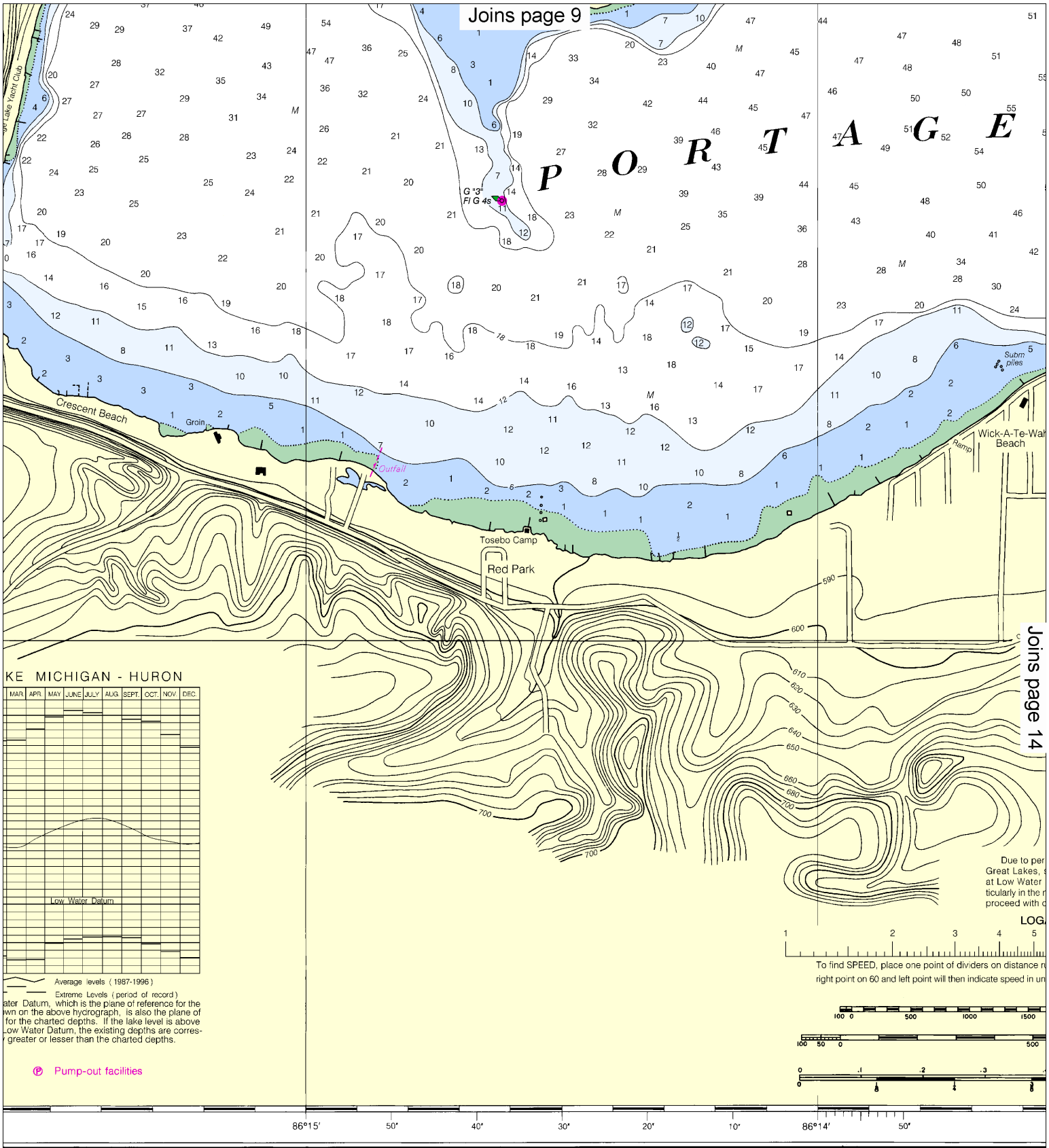
Nautical Miles

0

Yards

200 0 200 400 600 800 1000 1200

See Note on page 5.



NGS IN FEET

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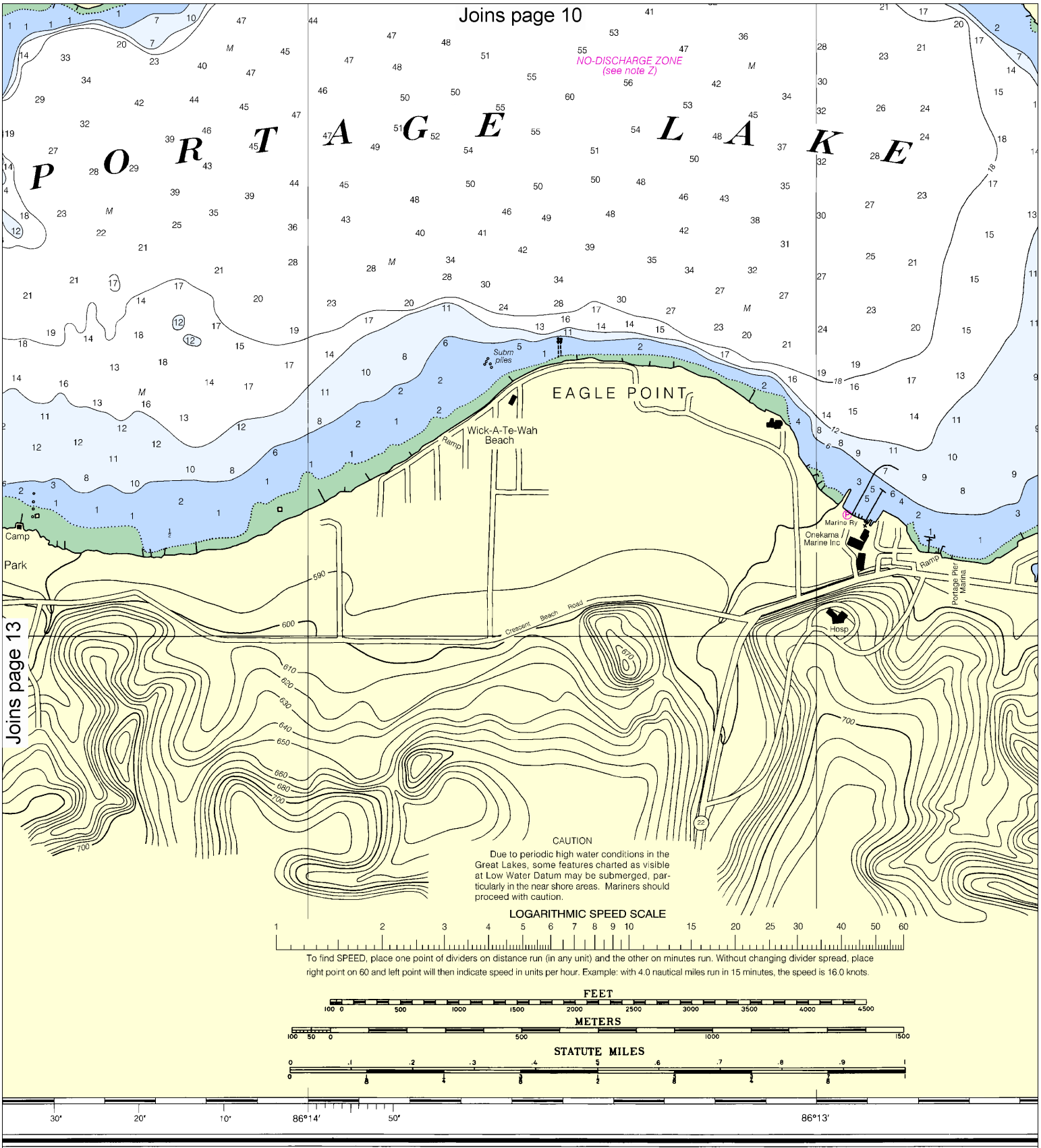
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY



Published at Washington, D.C.
U.S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL OCEAN SERVICE
COAST SURVEY

FATHOMS	1	2	3	4
FEET	6	12	18	24
METERS	1 2 3 4 5 6 7 8			

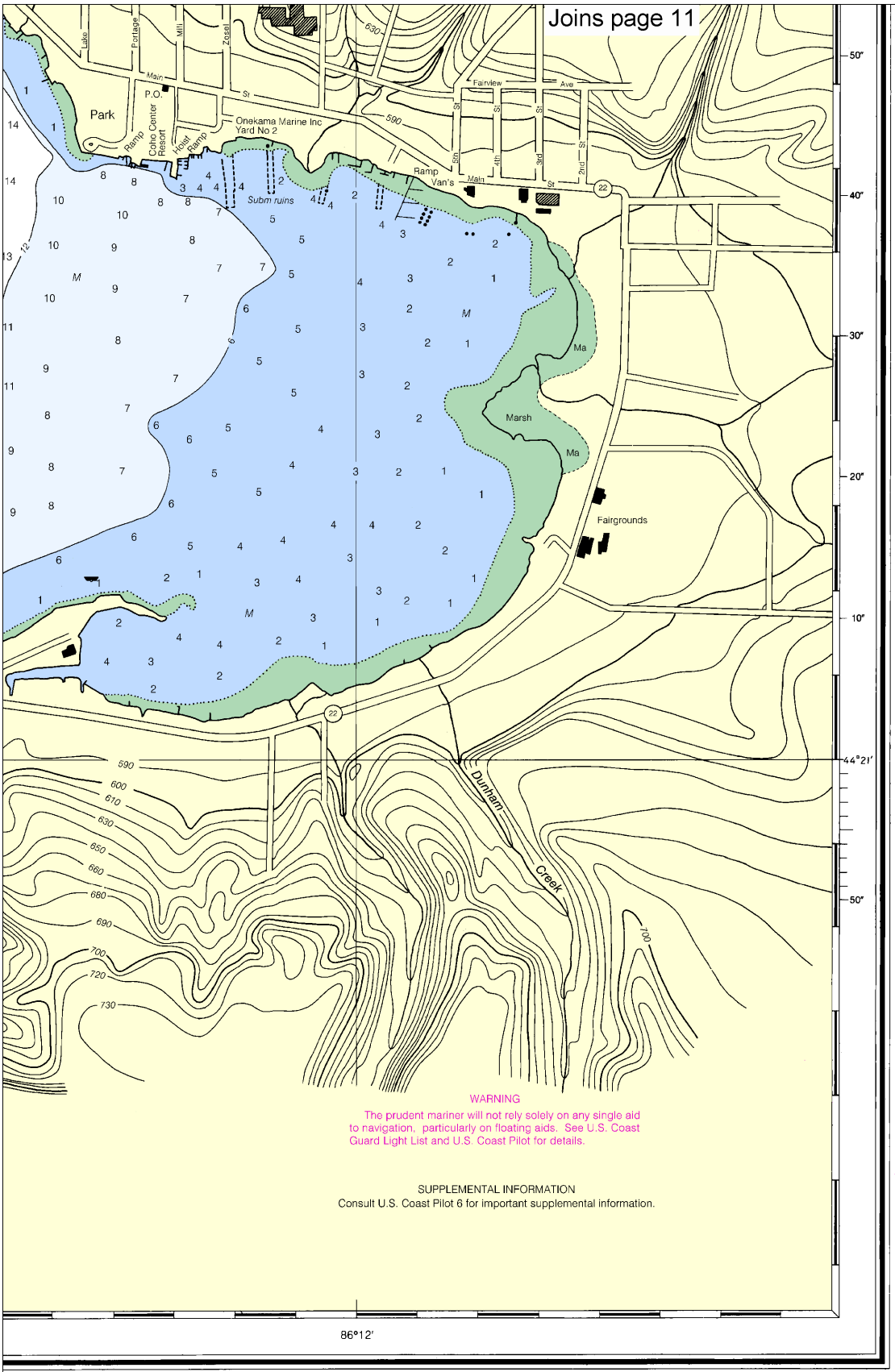
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:10,000~~

Nautical Miles 0

Yards 200 0 200 400 600 800 1000 1200

See Note on page 5.



WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 for important supplemental information.

ED. NO. 23

NSN 7642014010703 NIMA STOCK NO. 14XHA14939

(Portage Lake)

14939

SOUNDINGS IN FEET- SCALE 1:10,000

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, and harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

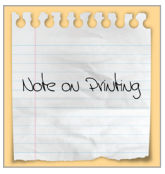
All Hazards NOAA Weather Radio NOAA's National Weather Service

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.
http://www.nws.noaa.gov/nwr/

Quick References

Nautical chart related products and information	—	**http://www.nauticalcharts.noaa.gov**
Online chart viewer	—	**http://www.nauticalcharts.noaa.gov/mcd/NOAAChartViewer.html**
Report a chart discrepancy	—	**http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx**
Chart and chart related inquiries and comments	—	**http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs**
Chart updates (LNM and NM corrections)	—	**http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html**
Coast Pilot online	—	**http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm**
Tides and Currents	—	**http://tidesandcurrents.noaa.gov**
Marine Forecasts	—	**http://www.nws.noaa.gov/om/marine/home.htm**
National Data Buoy Center	—	**http://www.ndbc.noaa.gov/**
NowCoast web portal for coastal conditions	—	**http://www.nowcoast.noaa.gov/**
National Weather Service	—	**http://www.weather.gov/**
National Hurrican Center	—	**http://www.nhc.noaa.gov/**
Pacific Tsunami Warning Center	—	**http://ptwc.weather.gov/**
Contact Us	—	**http://www.nauticalcharts.noaa.gov/staff/contact.htm**

twitter —— For the latest news from Coast Survey, follow **@nauticalcharts**



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

NOAA's Office of Coast Survey The Nation's Chartmaker